Limitless[™] Wireless Solutions





Imagine a world without wires. What would you do with more freedom?



It's time to retire the wire. To give your best ideas free rein. Honeywell's Limitless[™] Series of wireless limit switches and receivers allows you to go farther, work smarter, and explore more possibilities than ever before.

Honeywell's Limitless[™] series of switch solutions is leading the way. Honeywell Sensing and Control developed this technology to be a cutting-edge, cost-saving solution. That innovation starts whether you're retrofitting into an existing industrial or transportation application, or starting a new design. Now you have the freedom to push your designs and applications further and expand your vision.

For far too long, technology has been tied to the same old way of transmitting and connecting. But there's a price to pay for clinging to wired technology. There's an intangible cost in man-hours and missed production hours. And there are tangible costs — actual wear-and tear on equipment wiring and connections that can cause complete disruption of your operation.

Imagine how much could be saved once your best ideas were given free rein...

It's time to discover the possibilities. Choose wireless Limitless[™] switches to give your ideas free rein.

More distance - Limitless[™] devices

have up to a 305 m [1000 ft] line-

of-sight range without using

repeaters, depending on

antenna type

More flexibility

Since you're no longer tethered by wire, you can reconfigure and network multiple switches, easily allowing addition, subtraction, or relocation of Limitless[™] switches

More diagnostics -

TCA

Limitless[™] user-friendly software provides information on battery health, and signal strength for each specific input

More durability - Limitless[™] Series offerings will include versions with an all-metal body and drive train, low-temperature capability, and/or enclosure with an anticorrosion epoxy coating

> More savings -Limitless™ switches can greatly reduce the costs of wiring, installation, and maintenance for all devices and equipment

More standard options -

Limitless[™] products use a globally licensefree, 802.15.4 RF radio and commercially available batteries for easy replacement anywhere in the world

More security -Limitless[™] products conform to the international IEEE 802.15.4 standard and feature 16-bit address and 128-bit AES security keys

*Some countries require specific communication certifications. Contact Honeywell for existing certification information.

Limitless[™] Limit Switch Series WGLA Global Limit Switches WLS Heavy-Duty Limit Switches

Honeywell's Limitless[™] product line combines the best of Honeywell's global limit switches with the latest commercial state-of-the-art wireless technology. Wireless-enabled limit switches can be used for position sensing and presence/ absence detection for an endless number of applications.

The Limitless[™] Series is especially beneficial for remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies for machines, equipment, OEMs, and operators.

FEATURES

Wireless Design

- Radio (license-free and global*): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, COFETEL, IDA, ETSI, WPC, SRRC, KCC, and ANATEL (see specific product series for applicable approvals)
- RoHS compliant
- EMI resistance protects against external interference
- In excess of 305 m [1000 ft] line-ofsight communication
- Reliable, flexible, and secure wireless transmission
- Standard replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

WGLA Series Features

- EN50041 metal enclosure
- IP67; NEMA 1,4,12,13
- Multiple operating heads and lever options
- Modular construction of components

WLS Series Features

- EN 50041 metal enclosure
- IP67/IP68; NEMA 1, 3, 4, 6, 6P, 12, 13
- Unique all-metal drive train
- Twin shaft seals (rotary)
- Zinc head and body are phosphate treated and epoxy finished making it less susceptible to effects from environmental exposure
- Full complement of operating heads and levers
- Chemical resistant fluorocarbon seals
 (optional)

BENEFITS

- Enables wireless presence/absence detection in applications/machinery where wiring is challenging or not feasible
- Integration of existing wireless technology with the superior reliability of Honeywell's MICRO SWITCH™ limit switch series
- Ability to reconfigure and network multiple switches, easily allowing addition, subtraction or relocation of Limitless[™] switches in the application
- Reduces installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, or connection boxes
- Output options
 - Panel-mount monitor: visual, audible (buzzer), one NPN output
 - DIN-mount receiver: visual, 14 NPN/PNP-type outputs
- Consumes ultra-low power to prolong battery life (replaceable)
- RF board operating in 2.4 GHz globally license-free frequency band; WPAN 802.15.4
- SIL reliability data available upon request



APPLICATIONS

- Construction/ag machines
- Conveyors
- Crane boom/jib/skew position
- Door position
- Grain diverters or flaps
- Hose attachment verification
- Lifts
- Material handling
- Movable machinery
- Presses
- Remote or temporary equipment
- Specialty machines
- Valve position

WGLA Series		WLS Series
Limitless™ global limit switches	Product type	Limitless™ heavy-duty limit switches
Global, license-free RF bands*	Availability	Global, license-free RF bands*
Reference WGLA installation drawing	Operating characteristics	Reference WLS installation drawing
Side rotary, top plunger, top roller, top roller lever	Actuator	Side rotary, top plunger, side plunger, top roller plunger, top adjustable plunger, wobble stick
Rotary lever included w/side rotary; other lever options available	Lever type	Many rotary lever options available
Zinc head and body are phosphate treated and epoxy finished	Housing material	Zinc head and body are phosphate treated and epoxy finished
EN 50041	Housing type	WLS (EN 50041)
WPAN 802.15.4; 2.4 GHz point-to-point; specific country communication agency approval required	Radio	WPAN 802.15.4; 2.4 GHz point-to-point; specific country communication agency approval required
Direct or remote-mount antenna options; omni-directional	Antenna type	Direct or remote-mount antenna options; omni-directional
In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2dBi integral antenna	Signal range	In excess of 305 m [1000 ft] line-of-sight communication between Limitless [™] switches and monitor/receiver when using 2.2dBi integral antenna
3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size manufactured by Green Energy p/n ER14335M; Honeywell p/n WBT1	Battery	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size manufactured by Green Energy p/n ER14335M; Honeywell p/n WBT1
IP67; NEMA 1, 4, 12, 13	Sealing	IP67, IP68; NEMA 1, 3, 4, 6, 6P, 12, 13
Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1	EMC	Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1
IEC 60068-2-27; half sine, 10 g, 6 mS, 3 axis	Shock	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
IEC 60068-2-6; 10 Hz to 500 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz, 5 g	Vibration	IEC 60068-2-6; 10 Hz to 58 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz, 5 g
-40 °C to 85 °C [-40 °F to 185 °F] (side rotary and side plunger) -25 °C to 85 °C [-13 °F to 185 °F] (all other actuators)	Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F] -30 °C to 85 °C [-22 °F to 185 °F](wobble sticks)
FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark COFETEL IDA; ANATEL; SRRC; KCC; WPC	Agency approvals and standards	FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark COFETEL IDA; ANATEL; SRRC; KCC; WPC

*Some countries require specific communication certifications.

Contact Honeywell for existing certification information.

Limitless[™] Limit Switch Series

WGLA and WLS Series Dimensions and Ordering Options



WLS NOMENCLATURE



Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary. LSZ51A (standard lever with nylon roller) ordered separately,

WLS SERIES ACTUATOR CODE TABLE (see page 9 for more detail)

Code	Catalog Listing	Material	Roller Dia. (in)	Roller Width (in)	Roller Mounting
Fixed 1	5 inch radiu	S			
1		Rollerless	n/a	n/a	n/a
1A	LSZ51A	Nylon	0.75	0.25	Front
1B	LSZ51B	Steel	0.75	0.25	Front
10	LSZ51C	Nylon	0.75	0.25	Back
1D	LSZ51D	Steel	0.75	0.25	Back
1F	LSZ51F	Nylon	1.0	0.520	Front
1G	LSZ51G	Nylon	1.5	0.25	Front
1J	LSZ51J	Nylon	1.0	0.520	Back
1L	LSZ51L	Ball bearing	0.75	0.25	Back
1M	LSZ51M	Nylon	0.75	1.25	Back
1N	LSZ51N	Steel	0.75	1.25	Front
1P	LSZ51P	Nylon	0.75	0.50	Front
Adjusta	able 1.5 in to	3.5 in radius			
2		Rollerless	n/a	n/a	n/a
2A	LSZ52A	Nylon	0.75	0.25	Back
2B	LSZ52B	Steel	0.75	0.25	Back
2C	LSZ52C	Nylon	0.75	0.25	Front
2D	LSZ52D	Steel	0.75	0.25	Front
2E	LSZ52E	Nylon	0.75	1.30	Front
2J	LSZ52J	Nylon	1.0	0.50	Front
2K	LSZ52K	Nylon	1.5	0.25	Front
2L	LSZ52L	Ball bearing	0.75	0.25	Front
2M	LSZ52M	Nylon	2.0	0.25	Front
2N	LSZ52N	Nylon	0.75	0.50	Front
Yoke -	1.5 in radius				
3A	LSZ53A	Nylon	0.75	0.25	Front/Back
3B	LSZ53B	Steel	0.75	0.25	Front/Back
3D	LSZ53D	Steel	0.75	0.25	Front/Front

Code	Catalog Listing	Material	Roller Dia. (in)	Roller Width (in)	Roller Mounting
Yoke –	1.5 in radius	, continued			
3E	LSZ53E	Nylon	0.75	0.25	Back/Front
3M	LSZ53M	Nylon	0.75	1.25	Back/Front
3P	LSZ53P	Steel	0.75	0.25	Back/Back
3S	LSZ53S	Nylon	0.75	0.25	Back/Back
Rod					
4		Hub only	n/a	n/a	n/a
4M	LSZ54M	Alum, 5.5 in	n/a	n/a	n/a
4N	LSZ54N	Stainless, 13 in	n/a	n/a	n/a
4R	LSZ54R	Spring Wire, 12 in	n/a	n/a	n/a
4V	LSZ54V	Flex cable, 4.8 in	n/a	n/a	n/a
Offset -	- 1.5 in radius	3			
5		Rollerless	n/a	n/a	n/a
5A	LSZ55A	Nylon	0.75	0.25	Back
5B	LSZ55B	Steel	0.75	0.25	Back
5C	LSZ55C	Nylon	0.75	0.25	Front
5D	LSZ55D	Steel	0.75	0.25	Front
5E	LSZ55E	Nylon	0.75	0.50	Front
5K	LSZ55K	Nylon	1.5	0.25	Front
Wobble	stick				
7A	LSZ1JGA	Delrin™ rod, 5.5	n/a	n/a	n/a
7M	LSZ1JGM	Spring wire, 13.0	n/a	n/a	n/a
7N	LSZ1JGN	Cable, 5.5 in.	n/a	n/a	n/a
Short f	ixed - 1.3 in ra	adius			
9A	LSZ59A	Nylon	0.75	0.25	Front
9B	LSZ59B	Steel	0.75	0.25	Front
9C	LSZ59C	Nylon	0.75	0.25	Back
9D	LSZ59D	Steel	0.75	0.25	Back

Limitless[™] Limit Switch Series

WGLA Series Levers



Limitless[™] Limit Switch Series WLS Series

Levers





steel roller, front







LSZ60 one-way roller lever



yoke lever, nylon and steel rollers, front and back placement



LSZ52A through D adj. lever, nylon & steel, front/back



adjustable lever, 1.5-inch nylon roller adjustable lever, 1-inch nylon roller

LSZ52J





LSZ68 12-inch rod with spring

LSZ54N 13-inch stainless steel rod

Limitless[™] Limit Switch Series WLS Heavy-Duty Limit Switch with Eyelet Pull

Limitless[™] WLS Series Heavy Duty Wireless Limit Switches with an eyelet-pull operating head can be used to attach a rope, cable or chain. It also can be used on cranes as an anti-two-block (A2B) switch. The Limitless[™] Series benefits remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies and improved safety for machines, equipment, OEMs, and operators.

FEATURES

Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-topoint
- FCC 15, IC, ACMA, ETSI, COFETEL, WPC, IDA, ANATEL, SRRC, and KCC
- Up to 1000 ft [305 m] line of sight communication range when used with a Limitless[™] WPMM Series wireless monitor or WDRR Series receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Long-life standard replaceable battery
- Direct or remote mount antenna options

Mechanical Design

- IP67/IP68; NEMA 1, 4, 6, 6P, 12, 13
- Unique all-metal drive train
- Zinc head and body are phosphate treated and epoxy finished
- Tested to 750 lb of pull force
- Captive head and body screws

BENEFITS

- Enables presence/absence detection in remote parts of application/ machinery, where wiring is an issue or not feasible
- Ability to reconfigure multiple switches that easily allows for adding, subtracting or relocating Limitless[™] WLS switches
- Reduces installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, or connection boxes
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



APPLICATIONS

- Cranes: A2B (anti-two block) switch
- Rope-pull: door activation switch
- Cable pull for production stop applications (e.g., quality, broken tool, maintenance, out of parts); not applicable to human safety-stop applications

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WLS Series with Eyelet Pull

WLS Series with Eyelet Pull
Limitless™ Wireless Heavy-Duty Limit Switches
Global, license-free bands
Operating force: 7 lb approx. or 18 lb approx.
Eyelet-pull operating head (pull eyelet in-line with shaft to prevent damage)
Zinc head and body are phosphate treated and epoxy finished
WPAN 802.15.4; 2.4 GHz
RP-SMA jack for direct or remote mount antenna options; omni-directional
In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2 dBi integral antenna
3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Manufactured by Green Energy, part number ER14335M Manufactured by Honeywell, part number WBT1
IP67/IP68; NEMA 1, 4, 6, 6P, 12, 13
Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1
IEC 60068-2-27; half sine, 10 g, 6 mS, 3 axis
IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 5g
-40 °C to 85 °C [-40 °F to 185 °F]
 FCC 15.247: United States of America IC RSS 210: Canada ETSI, CE mark: European countries ACMA, C-TICK: Australia, New Zealand IDA: Singapore COFETEL: Mexico WPC: India ANATEL: Brazil SRRC: China KCC: South Korea

Limitless[™] Wireless Heavy-Duty Limit Switch with Eyelet Pull

Dimensions and Ordering Options



Limitless[™] Wireless Heavy-Duty Limit Switch with Eyelet Pull

Standard Listings

Limitless™ WLS Series with Eyelet Pull for use in US/Canada					
WLS	1A11	Α	Q-4P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to left side, 0 dBi omni antenna	
WLS	1A11	Α	Q-P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna	
WLS	1A11	Α	Q-P02	Limitless™ WLS Series heavy-duty limit switch with 18 lb high-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna	
Limitless	s™ WLS Se	eries	with Eyele	et Pull for use in all other approved countries	
WLS	1A11	в	Q-4P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to left side, 0 dBi omni antenna	
WLS	1A11	в	Q-P01	Limitless™ WLS Series heavy-duty limit switch with 7 lb low-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna	
WLS	1A11	в	Q-P02	Limitless™ WLS Series heavy-duty limit switch with 18 lb high-force eyelet pull operating head, head assembled with actuator to label side, 0 dBi omni antenna	



Limitless[™] Limit Switch Series WLS Heavy-Duty Limit Switch Single Switch Adapter

Honeywell's Limitless[™] product line uses the latest commercial off-the-shelf wireless technology and has expanded the WLS Series to convert almost any electromechanical switch with low-energy contacts (i.e., gold) into a wireless switch. A user-supplied electromechanical switch is simply wired to the WLS Series Single Switch Adapter via the internal or external connections to then become a wireless-enabled switch for use with the Limitless[™] WPMM or WDRR Series of monitors/receivers. The Limitless[™] Single Switch Adapter can be used in a variety of industrial wireless limit switch applications such as reed, contact, pressure, door actuator, etc.

The Limitless[™] Series is especially beneficial for remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies and improved safety for machines, equipment, OEMs, and operators.

FEATURES

Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-topoint
- FCC 15, IC, ACMA, ETSI, COFETEL, WPC & IDA
- Up to 305 m [1000 ft] line-of-sight communication range when used with a Limitless[™] WPMM Series wireless monitor or WDRR Series receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Standard replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

Mechanical Design

- IP67; NEMA 1, 4, 12, 13
- 4 PIN M12 micro-change receptacle, cable grip with internal connector wiring options
- Internal battery power
- Body phosphate treated and epoxy finished with a 30 % glass-filled PBT plastic head

BENEFITS

- Allows almost any type of electromechanical switch with low-energy contacts (i.e., gold) to become "wireless"
- Enables presence/absence detection in remote parts of application/machinery, where wiring is an issue or not feasible
- Ability to reconfigure multiple switches, which easily allows for adding, subtracting or relocating of the Limitless™ WLS Single Switch Adapters
- Reduced installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



APPLICATIONS

- Agricultural equipment
- Construction equipment
- Door actuation (up/down) switch
- Industrial machines
- Lifts
- Machine tools
- Packaging machinery
- Wireless warehouse operations
- Wireless electromechanical switch applications (i.e., pressure switch, reed switch, basic switch and/or limit switch)



WLS Series Single Switch Adapter

	WES Series Single Switch Adapter
Product type	Limitless [™] Single Switch Adapter
Availability	Global, license-free bands
Housing material	Zinc body is phosphate treated and epoxy filled; 30 % glass-filled PBT plastic head
Radio	WPAN 802.15.4; 2.4 GHz
Antenna type	RP-SMA jack for direct or remote mount antenna options; omni directional standard
Signal range	Nominal 305 m [1000 ft] clear line of sight between Limitless™ switch and monitor/receiver when using 2.2 dBi integral antennas
Battery	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Manufactured by Green Energy, part number ER14335M Manufactured by Honeywell, part number WBT1
Sealing	IP67, NEMA 1, 4, 12, 13
EMC	Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1
Shock	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
Vibration	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 10g
Operating temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Electromechanical switch	SPDT (Form C) switch with low-energy contacts (i.e., gold) capable of reliably controlling a 3.6 Vdc @ 30 mA electrical load to ensure proper operation
Electrical connections	 4-pin M12 micro-connector with three-pole, single keyway female receptacle Cable grip with internal screw connector Note: Maximum cable length 3 m [9.84 ft]
Communication Agency Approvals/ Certificates*	 FCC 15.247: United Sates of America IC RSS 210: Canada COFETEL: Mexico ETSI, CE mark: European countries ACMA, C-TICK: Australia IDA: Singapore WPC: India

* Honeywell is continuing to add new Country Communication Agency Approvals as opportunities and requirements are established.

 $\mbox{*}Some$ countries require specific communication certifications.

Contact Honeywell for existing certification information.

Limitless™ Single Switch Adapter

Dimensions and Ordering Options



WLS SINGLE SWITCH ADAPTER NOMENCLATURE



Limitless[™] Single Switch Adapter

Standard Listings

Limitless	s™ Single	Switch Adap	ter for use in US/Canada		
M12 Cor	nnector				
WLS	1A00	A QBT1	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with M12 micro-connector on top of head		
WLS	1A02	A QBT1	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with M12 micro-connector on top of head		
WLS	1A11	A QBT1	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with M12 micro-connector on top of head		
Cable Grip					
WLS	1A00	A QBT3	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with cable grip on top of head		
WLS	1A02	A QBT3	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with cable grip on top of head		
WLS	1A11	A QBT3	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with cable grip on top of head		
Limitless	s™ Single	Switch Adap	ter for use in all other approved countries		
M12 Cor	nnector				
WLS	1A00	B QBT1	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with M12 micro-connector on top of head		
WLS	1A02	B QBT1	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with M12 micro-connector on top of head		
WLS	1A11	B QBT1	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with M12 micro-connector on top of head		
Cable Grip					
WLS	1A00	B QBT3	Limitless™ WLS Series Single Switch Adapter, no antenna, internal battery with cable grip on top of head		
WLS	1A02	B QBT3	Limitless™ WLS Series Single Switch Adapter, 2.2 dBi tilt/swivel antenna, internal battery with cable grip on top of head		
WLS	1A11	B QBT3	Limitless™ WLS Series Single Switch Adapter, 0 dBi straight antenna, internal battery with cable grip on top of head		



Limitless[™] Limit Switch Series WLS Series Wireless Non-Contact Switch

Honeywell's Limitless[™] product line uses the latest commercial off-the-shelf wireless technology. The Limitless[™] WLS Series is especially beneficial for remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Honeywell has expanded the Limitless[™] product line with its industrial Wireless Non-Contact Switch that provides noncontact presence/absence detection of a variety of different magnet styles and magnetic actuators installed on the end-users' product, machine, equipment, etc. The Limitless[™] WLS Non-Contact Switch's design features an industrial grade reed switch. Customers can choose how the reed switch is oriented within the switch's plastic head, i.e., either top- or side-sensing. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies and improved safety for industrial machines, equipment, OEMs, and operators.

FEATURES

Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-topoint
- FCC 15, IC, ACMA, ETSI, COFETEL, WPC & IDA
- Up to 305 m [1000 ft] line-of-sight communication range when used with a Limitless[™] wireless monitor or receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

Mechanical Design

- IP67; NEMA 1, 4, 12, 13
- Top and side sensing heads
- Zinc head and body are phosphate treated and epoxy finished

BENEFITS

- Allows "non-contact" actuation
- Enables presence/absence detection in remote parts of application/machinery, where wiring is an issue or not feasible
- Able to reconfigure and network multiple switches, or point-to-point with personalized addresses, which allows for adding, subtracting or relocating of the Limitless[™] WLS Non-Contact Switches
- Reduced installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



APPLICATIONS

- Machine tools
- Packaging machinery
- Lifts
- Ag/construction equipment
- Industrial machines



WLS Series Wireless Non-Contact Switch Product type Limitless[™] Wireless Non-Contact Switch **Availability** Global, license-free bands Operating point: 3,81 mm [0.15 in] min.; Operating Release point: 15,24 mm [0.60 in] max. characteristics with use of WMG1 magnet (included with WLS Series Non-Contact Switch) Sensing target Top and side of head Housing material Zinc head and body are phosphate treated and epoxy finished; 30% glass-filled PBT plastic head Radio WPAN 802.15.4; 2.4 GHz Antenna type RP-SMA jack for direct or remote mount antenna options; omni directional standard Nominal 305 m [1000 ft] Signal range Clear line-of-sight between Limitless™ switch and monitor/receiver when using 2.2 dBi integral antenna 3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1yr) Battery Manufactured by Green Energy, part number ER14335M; Manufactured by Honeywell, part number WBT1 Sealing IP67; NEMA 1, 4, 12, 13 Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EMC EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1 Shock EC 60068-2-27; half sine, 10 g, 6 mS, 3 axis Vibration IEC 60068-2-6; 10-58 Hz w/ 0,35 mm peak-to-peak - 5g Operating -40 to 85 °C [-40 °F to 185 °F] temperature - FCC 15.247: United Sates of America - IC RSS 210: Canada - COFETEL: Mexico Communication Agency Approvals/ - ETSI, CE mark: European countries Certificates* - ACMA, C-TICK: Australia - IDA: Singapore - WPC: India * Honeywell is continuing to add new Country Communication Agency Approvals as opportunities and requirements are established

*Some countries require specific communication certifications.

Contact Honeywell for existing certification information.

Limitless™ **Wireless Non-Contact Switch**

Dimensions and Ordering Options



NOTE: Not all combinations available.

For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

³If Limitless devices are used on machinery that may shipped globally, use country code "B"

RS1

Specials

Limitless™ Wireless Non-Contact Switch

Standard Listings

Limitless™ Wireless Non-Contact Switch for use in US/Canada

Top Sen	sing			
WLS	1A00	A QRS1	Limitless™ WLS Series Non-Contact Switch with no antenna and a top sensing target	
WLS	1A11	A QRS1	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a top sensing target	
Side Ser	nsing			
WLS	1A00	A QRS2	Limitless™ WLS Series Non-Contact Switch with no antenna and a side sensing target	
WLS	1A11	A QRS2	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a side sensing target	
Limitless™ Wireless Non-Contact Switch for use in all other approved countries				
Top Sen	sing			
WLS	1A00	B QRS1	Limitless™ WLS Series Non-Contact Switch with no antenna and a top sensing target	
WLS	1A11	B QRS1	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a top sensing target	
Side Ser	nsing			
WLS	1A00	B QRS2	Limitless™ WLS Series Non-Contact Switch with no antenna and a side sensing target	
WLS	1A11	B QRS2	Limitless™ WLS Series Non-Contact Switch with a 0 dBi antenna and a side sensing target	
			-	



Limitless[™] Wireless Operator Interface WOI Series

The Limitless[™] product line extends to include wireless operator interface. With both momentary and maintained contacts, the wireless operator interface (WOI) can be used by an operator to provide indication via a pushbutton or another user-chosen operator type (i.e. 22 mm rotary switch, 22 mm key switch, etc.). The WOI Series adds a human interface device to the product-driven interfaces of Limit-less[™] switches and receivers – wireless control from both person and position.

The WOI Series is especially beneficial for remote monitoring applications where wiring or wire maintenance is not physically possible or economically feasible. Combining this greater flexibility with proven harsh-duty packaging can result in increased efficiencies and ease in establishing a remote operator for use in a variety of applications, including turning equipment or devices on or off, opening and closing doors/gates, stopping a production conveyor, indicating the need for service, and much more.

FEATURES

Wireless Design

- Radio (license-free and global): WPAN 802.15.4, 2.4 GHz, point-topoint
- FCC 15, IC, ACMA & ETSI
- RoHS compliant
- EMI immunity
- Up to 305 m [1000 ft] communication range when used with a Limitless[™] wireless monitor or receiver module (sold separately)
- Reliable, flexible, and secure wireless transmission
- Standard replaceable battery with ultra-low power consumption
- Direct or remote mount antenna options

Mechanical Design

- Aluminum enclosure
- IP65 sealing
- 22 mm flush, 29 mm mushroom, &
 40 mm mushroom (push-pull) round pushbutton operators available
- User chosen/installed operator type is allowable
- Momentary and maintained contact options
- Design for ease of installation

BENEFITS

- Enables operator indication (i.e. push button) from remote locations where wiring is too costly or not possible
- Flexibility for users to choose and install their desired operator type;
 i.e. 22 mm rotary switch, 22 mm key switch, etc.
- Ability to reconfigure and network multiple WOI inputs, or point-to-point with personalized addresses, which allows for adding, subtracting or relocating of Limitless[™] WOI switches easily
- Offers the ability to be used in conjunction with Limitless[™] switches configured on a single Limitless[™] receiver
- Reduced installation/maintenance costs with no wires, conduit, strain relief, clips, connectors, connection boxes, etc.
- Eliminates issues with wire connection integrity on moving equipment
- Consumes ultra-low power to prolong battery life



APPLICATIONS Industrial

- CNC action
- Conveyors
- Door/Gate action
- Lifts
- Material handling
- Motor drives
- Presses
- Pumps
- Quality control buttons
- Specialty machines
- Stop/Start machinery
- Stop/Start production
- Valve action

Transportation

- Agricultural equipment
- Movable machinery

	WOI Series
Product type	Limitless™ Operator Interface Switches
Availability	Global, license-free bands
Operating force	Momentary pushbutton: 6,2 N \pm 2 N [1.4 lb \pm 0.45 lb] Maintained pushbutton: 7,0 N \pm 2 N [1.6 lb \pm 0.45 lb]
Actuator type	 Pushbutton operators 22 mm round flush momentary 29 mm mushroom head momentary 40 mm mushroom head maintained (push-pull); No operator option available for use with user supplied 22 mm operator and contact blocks
Actuator/contact blocks (if user supplied)	22 mm switch design (i.e. 22mm rotary switch, 22mm key switch, etc.) /gold contact, normally open and normally closed contact blocks capable of reliably controlling a 30 mA @ 3.6 Vdc electrical load
Actuator colors	Black, Green, Red*, Yellow * not available for the 29 mm mushroom, & 40 mm mushroom (push-pull) pushbuttons
Housing material	Powder coated aluminum
Radio	WPAN 802.15.4; 2.4 GHz
Antenna type	Direct or remote mount antenna options; Omni directional
Signal range	Nominal 305 m [1000 ft] clear line of sight between Limitless™ WOI switch and monitor/receiver when using 2.2 dBi integral antennas
Battery	3.6 Vdc Lithium Thionyl Chloride; 2/3 AA size (Est. life >1.5 years) Manufactured by Green Energy p/n ER14335M; Manufactured by Honeywell, part number WBT1
Sealing	IP65
EMC	Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1
Shock	IEC 60068-2-27; half sine, 50 g, 6 mS, 3 axis
Vibration	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 10g
Operating temperature	-25 °C to 50 °C [-13 °F to 122 °F]
Agency approvals and standards	FCC 15.247 Industry Canada RSS 210 ETSI, CE mark ACMA, C-Tick mark

Limitless[™] Wireless Operator Interface

Dimensions and Ordering Options



WOI NOMENCLATURE



For further information on establishing any of the above listings, please contact Honeywell Sensing and Control or your local sales office.

² If Limitless™ devices are ³NO used on machinery that may be shipped globally, use Country Code "B".

Limitless[™] Wireless Operator Interface

WOI Standard Listings

Limitles	s™ WOI Se	ries Operato	or Interface for use in US/Canada
22 mm f	flush push	button	
WOI	1A00	A PAG	Limitless™ WOI, no antenna, 22 mm round flush momentary green pushbutton
WOI	1A00	A PAR	Limitless™ WOI, no antenna, 22 mm round flush momentary red pushbutton
WOI	1A11	A PAG	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary green pushbutton
WOI	1A11	A PAR	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary red pushbutton
29 mm r	mushroom	pushbutto	n
WOI	1A00	A PBY	Limitless™ WOI, no antenna, 29 mm mushroom head momentary yellow pushbutton
WOI	1A11	A PBY	Limitless™ WOI, 0 dBi straight antenna, 29 mm mushroom head momentary yellow pushbutton
40 mm r	maintained	l pushbutto	n
WOI	1A00	A PCY	Limitless™ WOI, no antenna, 40 mm maintained yellow pushbutton
WOI	1A11	A PCY	Limitless™ WOI, 0 dBi straight antenna, 40 mm maintained yellow pushbutton
Limitles	s™ WOI Se	ries Operato	or Interface for use in all other approved countries
22 mm f	flush push	button	
WOI	1A00	B PAG	Limitless™ WOI, no antenna, 22 mm round flush momentary green pushbutton
WOI	1A00	B PAR	Limitless™ WOI, no antenna, 22 mm round flush momentary red pushbutton
WOI	1A11	B PAG	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary green pushbutton
WOI	1A11	B PAR	Limitless™ WOI, 0 dBi straight antenna, 22 mm round flush momentary red pushbutton
29 mm r	mushroom	pushbutto	n
WOI	1A00	B PBY	Limitless™ WOI, no antenna, 29 mm mushroom head momentary yellow pushbutton
WOI	1A11	B PBY	Limitless™ WOI, 0 dBi straight antenna, 29 mm mushroom head momentary yellow pushbutton
40 mm r	maintained	l pushbutto	n
WOI	1A00	B PCY	Limitless™ WOI, no antenna, 40 mm maintained yellow pushbutton
WOI	1A11	B PCY	Limitless™ WOI, 0 dBi straight antenna, 40 mm maintained yellow pushbutton



Limitless[™] Monitor and Receiver WPMM Wireless Panel-Mount Monitor WDRR Wireless DIN-Rail Receiver

Limitless[™] WPMM Series wireless panel-mount monitors provide a visual, audio, and output based on a signal received from a Limitless[™] input. Limitless[™] WPMM monitors offer quick indication of an actuator position change on a paired Limitless[™] wireless limit switch.

The WDRR Series DIN-Rail receiver accommodates up to 14 Limitless[™] digital inputs for applications that need more than one-input/one-receiver configuration. It provides a separate visual and selectable NPN- or PNP-type output for indication of a change on a Limitless[™] input.

WPMM FEATURES

Wireless Electrical Design

- Radio (license-free and global*): WPAN 802.15.4, 2.4 GHz, point-to-point
- FCC 15, IC, ACMA, ETSI, COFETEL, IDA, WPC, SRRC, KCC, and ANATEL
- RoHS compliant
- EMI resistance protects against external interference
- In excess of 305 m [1000 ft] line-ofsight communication
- Reliable, flexible, and secure wireless transmission
- 10 Vdc to 30 Vdc supply
- Three output options: NPN normally open current sinking, PNP normally open current sourcing, and solid state relay
- Diagnostic functions include lost RF and low battery indication
- Designed primarily for single switch applications, but can monitor multiple wireless switches (sold separately)
- Field pairing function allows for rapid configuration

Mechanical Design

- Panel-mount enclosure (snap-in or screw mount)
- Polycarbonate, shock resistant, tamper-proof case
- Sealed to IP67
- Multiple LED function/status indicators with audible buzzer (configurable to silent)
- Direct or remote-mount antenna

WDRR FEATURES

Wireless Electrical Design

- Selectable NPN-, PNP-, or totempole- type output
- Fourteen configurable normally open or normally closed outputs for up to 14 Limitless[™] inputs (sold separately)
- Reliable, flexible, and secure
 wireless transmission
- Radio (license-free and global*): WPAN 802.15.4, 2.4 GHz, point-to-point
- In excess of 305 m [1000 ft] lineof-sight communication between Limitless™ switches and monitor/ receiver when using 2.2dBi integral antenna
- FCC 15, IC, ACMA, ETSI, COFETEL, IDA, WPC, SRRC, KCC, and ANATEL
- RoHS compliant
- Field pairing allows for rapid adding or subtracting inputs for quick configuration
- 10 Vdc to 28 Vdc supply
- Diagnostic functions include lost RF
 and low battery indication

Mechanical Design

- DIN Rail or screw mount
- Cage clamp screw terminal blocks for input/output connections
- Sealed to IP20
- Multiple LED function and status indicators
- LED RF signal strength indication for up to 14 Limitless™ inputs
 - Direct or remote mount antenna



- Lifts
- Material handling
- Movable machinery
- Presses

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- Remote or temporary equipment
- Specialty machines
 - Valve position

- LIMITLESS[™] SERIES BENEFITS
- Ability to reconfigure and network multiple switches, or point-to-point with personalized addresses that allow for adding, subtracting or relocating Limitless™ switches easily
- Reduced installation/maintenance costs with no wiring, conduit, strain relief, clips, connectors, connection boxes, etc.
- Communication security per the IEEE 802.15.4 standard [16-bit PAN (network) ID,16-bit address and 128-bit security key]
- Eliminates issues with wire and connector integrity on moving equipment
 - *Some countries require specific communication certifications. Contact Honeywell for existing certification information.

WPMM Series		WDRR Series
Limitless™ wireless panel mount monitor	Product type	Limitless™ wireless din-rail receiver (PLC interface)
WPMM Series	Series name	WDRR Series
Global, license-free RF bands*	Availability	Global, license-free RF bands*
LCP, VECTRA E130i	Housing material	Flame retardant ABS
Snap-in panel or screw-mount design	Housing type	DIN-Rail or screw-mount design
WPAN 802.15.4, 2.4 GHz point to point	Radio type	WPAN 802.15.4, 2.4 GHz point-to-point
RP-SMA jack for direct mount or remote antenna options; omni-directional standard	Antenna type	RP-SMA jack for direct mount or remote antenna options; omni-directional standard
In excess of 305 m [1000 ft] line-of-sight communication between Limitless™ switches and monitor/receiver when using 2.2 dBi integral antenna	Signal range	In excess of 305 m [1000 ft] line-of-sight communication between Limitless [™] switches and monitor/receiver when using 2.2 dBi integral antenna
Three LEDs: green, yellow, red Power indication: green Output indication: red Configuration/diagnostic: green, yellow, red Buzzer (output indic, config/diag) w/ silent option	Indication	Configuration LEDs: green, yellow, red 14 output/diagnostic LEDs: green, yellow, red Low battery & lost RF output LEDs: red, green RF signal strength LEDs: blue
10 Vdc to 30 Vdc	Supply voltage	10 Vdc to 28 Vdc
750 mA max.	Supply current	500 mA max.
NPN normally open current sinking; PNP normally open current sourcing; solid state relay	Output type	Selectable: NPN-type current sinking open collector or NPN-type "totem pole"; PNP-type current sourcing open collector or PNP-type "totem pole"
5 mA to 200 mA	Load current	10 mA max.
50 uA max.	Leakage current	100 uA max.
1.75 Vdc max. @ max. load @ 25 °C [77 °F]	Voltage drop	2.0 Vdc max. @ max. load @ 25 °C [77 °F]
3	Terminal(s)	18 usable
Quick connect, 0.25 in male blade	Termination	Cage-clamp screw terminal blocks
IP67	Sealing	IP20
Yes	Reverse polarity protection	Yes
Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1	EMC	Latest applicable standards: EN 300 328, V1.7.1; EN 61326-1 (2006); EN 301 489-1, V1.8.1; EN 301 489-17, V2.1.1
IEC 60068-2-27; half sine, 10 g, 6 mS, 3 axis	Shock	IEC 60068-2-27; Half sine, 10 g, 6 mS, 3 axis
IEC 60068-2-6; 10 Hz to 500 Hz w/ 0,35 mm peak-to-peak, 58 Hz to 500 Hz- 5 g	Vibration	IEC 60068-2-6; 10-500Hz w/ 0,35 mm peak-to-peak, 58-500 Hz- 5 g
-40 °C to 85 °C [-40 °F to 185 °F]	Operating temp.	-20 °C to 70 °C [-4 °F to 158 °F]
FCC 15.247; IC RSS 210, ETSI, CE mark; ACMA, C-TICK; COFETEL; IDA; ANATEL; WPC; SRRC; KCC	Agency approvals and standards	FCC 15.247; IC RSS 210, ETSI, CE mark; ACMA, C-TICK; COFETEL; IDA; ANATEL; WPC; SRRC; KCC
31,87 mm H x 44,40 mm W x 74,30 mm D [1.25 in H x 1.748 in W x 2.925 in D] ref.	Size	88,9 mm H x 152,4 mm W x 38,1 mm D [3.5 in H x 6 in W x 1.5 in D] ref.

*Some countries require specific communication certifications.

Contact Honeywell for existing certification information.

Limitless[™] Monitor WPMM Wireless Panel-Mount Monitor

Dimensions and Ordering Options



Limitless[™] Receiver

WDRR Wireless Din-Rail Receiver Dimensions and Ordering Options



Limitless[™] Limit Switch Series

WLS Series Operating Heads with Wobble Sticks



Limitless™ switch actuators may be custom designed by Honeywell S&C's engineering team to ensure optimum actuation for specific applications.

Accessories



Limitless[™] Series WGLA Standard Listings

Limitless™ WGLA Global Limit Switches for use in US/Canada/Mexico

Side ro	tary		
WGLA	1A01	A A1A	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, standard lever with nylon roller
WGLA	1A01	A A1E	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, standard lever with steel roller
WGLA	1A01	A A4J	Limitless™ WGLA, 2.2 dBi straight antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1A02	A A1A	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with nylon roller
WGLA	1A02	A A1E	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with steel roller
WGLA	1A02	A A4J	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1 A 04	A A1A	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with nylon roller
WGLA	1 A 04	A A1E	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with steel roller
WGLA	1 A 04	A A4J	Limitless™ WGLA,, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, 200 mm aluminum adj. rod
Top actuators			
WGLA	1A01	A B	Limitless™ WGLA, 2.2 dBi straight antenna, top pin plunger
WGLA	1A01	A C	Limitless™ WGLA, 2.2 dBi straight antenna, top roller plunger
WGLA	1A01	A D	Limitless™ WGLA, 2.2 dBi straight antenna, top roller lever
WGLA	1A02	A B	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top pin plunger
WGLA	1A02	A C	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller plunger
WGLA	1A02	A D	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller lever
WGLA	1 A 04	A B	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top pin plunger
WGLA	1 A 04	A C	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller plunger
WGLA	1 A 04	A D	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller lever

Limitless™ WGLA Global Limit Switches for use in all other approved countries

Side rot	ary		
WGLA	1 A 01	B A1A	Limitless [™] WGLA, 2.2 dBi straight antenna, momentary, standard lever with nylon roller
WGLA	1 A 01	B A1E	Limitless [™] WGLA, 2.2 dBi straight antenna, momentary, standard lever with steel roller
WGLA	1A01	B A4.	Limitless [™] WGLA, 2.2 dBi straight antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1A02	B A1A	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with nylon roller
WGLA	1A02	B A1E	Limitless [™] WGLA, 2.2 dBi tilt & swivel antenna, momentary, standard lever with steel roller
WGLA	1A02	B A4.	Limitless [™] WGLA, 2.2 dBi tilt & swivel antenna, momentary, 200 mm aluminum adjustable rod actuator
WGLA	1 A 04	B A1A	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with nylon roller
WGLA	1 A 04	B A1	Limitless™ WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, standard lever with steel roller
WGLA	1 A 04	B A4.	Limitless [™] WGLA, 5.5 dBi remote magnetic mount/t&s antenna with 5ft of cable, momentary, 200 mm aluminum adj.
Top actuators			
WGLA	1A01	ВВ	Limitless™ WGLA, 2.2 dBi straight antenna, top pin plunger
WGLA	1 A 01	ВС	Limitless™ WGLA, 2.2 dBi straight antenna, top roller plunger
WGLA	1 A 01	B D	Limitless™ WGLA, 2.2 dBi straight antenna, top roller lever
WGLA	1A02	ВВ	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top pin plunger
WGLA	1A02	ВС	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller plunger
WGLA	1A02	B D	Limitless™ WGLA, 2.2 dBi tilt & swivel antenna, top roller lever
WGLA	1 A 04	BB	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top pin plunger
WGLA	1 A 04	ВС	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller plunger
WGLA	1 A 04	B D	Limitless™ WGLA, 5.5 dBi remote magnetic mount/tilt & swivel antenna with 5 ft of cable, top roller lever

WLS Standard Listings

Limitless™ WLS Heavy-Duty Limit Switches for use in US/Canada/Mexico

Lilline		5 neavy-L	Juty Limit Switches for use in OS/Canada/Mexico
Side rota	ary		
WLS	1A00	A A	Limitless™ heavy-duty limit switch, no antenna, momentary, no lever
WLS	1A01	A A1A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A01	A A1B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A01	A A2A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A01	A A2B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with steel roller
WLS	1A02	A A1A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A02	A A1B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A02	A A2A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A02	A A2B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with steel roller
Side rota	ary, mainta	ained head	
WLS	1A00	A N	Limitless™ heavy-duty limit switch, no antenna, maintained, no lever
WLS	1A01	A N	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, maintained, no lever
WLS	1A02	A N	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, maintained, no lever
Top actu	ators		
WLS	1A00	A C	Limitless™ heavy-duty limit switch, no antenna, top plunger
WLS	1A00	A D	Limitless™ heavy-duty limit switch, no antenna, top roller plunger
WLS	1A01	A C	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top plunger
WLS	1A01	A D	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top roller plunger
WLS	1A02	A C	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top plunger
WLS	1A02	A D	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top roller plunger
Limitles	s™ WLS H	leavy-Duty	Limit Switches for use in all other approved countries
Side rota	ary		
WLS	1A00	ВА	Limitless™ heavy-duty limit switch, no antenna, momentary, no lever
WLS	1A01	B A1A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A01	B A1B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A01	B A2A	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A01	B A2B	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, momentary, adjustable 3.5 in lever with steel roller
WLS	1A02	B A1A	Limitless [™] heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with nylon roller
WLS	1A02	B A1B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, fixed 1.5 in lever with steel roller
WLS	1A02	B A2A	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with nylon roller
WLS	1A02	B A2B	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, momentary, adjustable 3.5 in lever with steel roller
Side rota	ary, mainta	ained head	
WLS	1A00	BN	Limitless™ heavy-duty limit switch, no antenna, maintained, no lever
WLS	1A01	BN	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, maintained, no lever
WLS	1A02	BN	Limitless [™] heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, maintained, no lever
Top actu	ators		
WLS	1A00	ВС	Limitless™ heavy-duty limit switch, no antenna, top plunger
WLS	1A00	B D	Limitless™ heavy-duty limit switch, no antenna, top roller plunger
WLS	1A01	ВС	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top plunger
WLS	1A01	B D	Limitless™ heavy-duty limit switch, 2.2 dBi straight antenna, top roller plunger
WLS	1A02	BC	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top plunger
WLS	1A02	B D	Limitless™ heavy-duty limit switch, 2.2 dBi tilt/swivel antenna, top roller plunger

Receiver Listings

Limitle	ss™ W	PMM	Standard Listing				
Part Number		D	Description				
Output:	NPN no	ormally	/ open current sinking				
WPMM	1A00	Α	Limitless™ WPMM monitor with NPN output, no antenna, US/Canada/Mexico				
WPMM	1A02	Α	Limitless™ WPMM monitor with NPN output, 2.2 dBi omni antenna (tilt & swivel design), US/Canada/Mexico				
WPMM	1A03	Α	Limitless™ WPMM monitor w/ NPN output, 3.0 dBi omni antenna with remote adhesive mount. w/ 9.8 ft cable, US/Canada/Mexico				
WPMM	1 A 04	Α	Limitless [™] WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 5 ft cable, US/Canada/Mexico				
WPMM	1 A 05	Α	Limitless [™] WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 10 ft cable, US/Canada/Mexico				
WPMM	1A00	В	Limitless™ WPMM monitor with NPN output, no antenna, for use in all other approved countries				
WPMM	1A02	в	Limitless™ WPMM monitor with NPN output, 2.2 dBi omni antenna (tilt & swivel design), for use in all other approved countries				
WPMM	1 A 03	в	Limitless [™] WPMM monitor w/ NPN output, 3.0 dBi omni antenna w/ remote adhesive mounting with 9.8 ft cable, for use in all other approved countries				
WPMM	1 A 04	в	Limitless [™] WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 5 ft cable, for use in all other approved countries				
WPMM	1 A 05	в	Limitless [™] WPMM monitor with NPN output, 5.5 dBi omni antenna (tilt & swivel design) with remote magnetic mounting with 10 ft cable, for use in all other approved countries				
Output:	PNP no	ormally	/ open current sourcing				
WPMM	1A00	A P	01 Limitless [™] WPMM monitor with PNP output, no antenna, US/Canada/Mexico				
WPMM	1A00	B P	01 Limitless [™] WPMM monitor with PNP output, no antenna, for use in all other approved countries				
Output:	Solid s	tate re	lay				
WPMM	1A02	A S	01 Limitless [™] WPMM monitor with solid state relay, 2.2 dBi omni antenna (tilt & swivel design), US/Canada/Mexico				

Limitless™ WDRR Standard Listings				
Part Number			Description	
WDRR	1A00	Α	0A	Limitless™ DIN-Rail receiver, no antenna, US/Canada/Mexico
WDRR	1A03	Α	0A	Limitless™ DIN-Rail receiver, 3.0 dBi omni antenna with remote adhesive mounting with 9.8 ft cable, US/Canada/Mexico
WDRR	1A05	A	0A	Limitless™ DIN-Rail receiver, 5.5 dBi omni antenna (tilt/swivel design) with remote magnetic mounting/10 ft cable, US/Canada/Mexico
WDRR	1A00	В	0A	Limitless™ DIN-Rail receiver, no antenna, for use in all other approved countries
WDRR	1A03	в	0A	Limitless [™] DIN-Rail receiver, 3.0 dBi omni antenna with remote adhesive mounting with 9.8 ft cable, for use in all other approved countries
WDRR	1A05	в	0 A	Limitless™ DIN-Rail receiver, 5.5 dBi omni antenna (tilt/swivel design) with remote magnetic mounting/10 ft cable, for use in all other approved countries

Standard Antenna Listings

Part Number	Description
Fait Number	•
WCA200RNPRSP-002	Limitless™ Series wireless cable assembly wth 200 Series cable, 2 ft length, reverse polarity N plug to reverse polarity SMA plug, use only with WAN06RNJ antenna
WCA200RNPRSP-010	Limitless™ Series wireless cable assembly wth 200 Series cable, 10 ft length, reverse polarity N plug to reverse polarity SMA plug, use only with WAN06RNJ antenna
WCA200RNJRSP-002	Limitless™ Series wireless cable assembly wth 200 Series cable, 2 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-005	Limitless™ Series wireless cable assembly wth 200 Series cable, 5 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-010	Limitless™ Series wireless cable assembly wth 200 Series cable, 10 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-015	Limitless™ Series wireless cable assembly wth 200 Series cable, 15 ft length, reverse polarity SMA jack to reverse polarity SMA plug
WCA200RNJRSP-020	Limitless™ Series wireless cable assembly wth 200 Series cable, 20 ft length, reverse polarity SMA jack to reverse polarity SMA plug

Limitless™ Wireless Antenna Standard Listings

Part Number	Description
WAN01RSP	Limitless™ Series straight wireless antenna with 2.2 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN02RSP	Limitless™ Series tilt/swivel wireless antenna with 2.2 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN03RSP	Limitless™ Series flat wireless antenna with 3 dBi gain, reverse polarity SMA plug, adhesive mount with 3,05 m [10 ft] cable
WAN04RSP*	Limitless™ Series tilt/swivel wireless antenna with 5.5 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN05RSP*	Limitless™ Series tilt/swivel wireless antenna with 9 dBi gain, reverse polarity SMA plug, connector mount (RP-SMA)
WAN06RNJ*	Limitless™ Series straight wireless antenna with 8 dBi gain, reverse polarity N jack, bracket mount with 0,31 m [1 ft] cable
WAN07RSP	Limitless™ Series straight wireless antenna with 0 dBi gain, reverse polarity SMA plug, connector mount 0 dBi straight w/RP-SMA plug
WAN08RSP	Limitless™ Series right angle wireless antenna with 0 dBi gain, reverse polarity SMA plug, connector mount 0 dBi straight w/RP-SMA plug
WAN09RSP	Limitless™ Series low profile straight antenna with 3.0 dBi gain, reverse polarity SMA plug, mobile magnetic mount with 4,57 m [15 ft] cable
WAN10RSP	Limitless™ Series straight antenna with 5.0 dBi gain, reverse polarity SMA plug, mobile magnetic mount with 4,57 m [15 ft] cable
WAN11RSP*	Limitless™ Series low profile dome antenna with 4.0 dBi gain, reverse polarity SMA plug, mobile thru-hole screw mount with 3 m [9.8 ft] cable

* not allowed for use with Country Code "B" Limitless™ products.



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- Door position
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- Hose attachment verification
- Lifts
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